

DRAFT

Detail Background to the Curriculum Vitae of John Oldham Submitted to the Commonwealth Forestry Association, 1998

My Introduction to Forestry

I have been interested in the use of natural resources since going on camping and fishing and prospecting trips with my father and my childhood visits to farms. My father also took me with him to his civil engineering work sites such as roads, drains, water pipes, playing field construction, stone crushing and sand digging. Even at a young age I was aware of the contribution which that type work makes to the improvement in living conditions and health.

So I became a civil engineer and applied my efforts in primary industry where new technology was continuously applied to improve the efficient use the benefits of nature.

Thinking back on my state school instruction I am impressed by the wide range of its content. Of particular relevance was the lesson on the natural cycle of forest and their products: trees grow with the aid of the sun, mature and die, biology and bush fires reduce them to carbon dioxide and water, seedlings -again with the aid of the sun- uses the carbon dioxide and water for life and structure, the new generation of trees matures. It was then a small step to understanding the conservation ethic of professional foresters.

I have received a lot of satisfaction when I see, during my travels in the remoter areas of Australia, the works and structures to which I made a contribution and the forests and plantations vigorously growing in South West Australia.

During my time working with the forests, the area of tall trees under conservation measures has increased in the South West. Wood production plantations have increased from ____ ha pine to ____ ha of pine and eucalyptus. This situation has resulted from discussion and the teamwork of people from all walks of life. While the democratic process is frustrating for those who think that they know best and is time consuming, the results are balanced and probably better for everyone in the long term.

The Forest Products Industry

Urbanisation is at full pace in the Asia-Pacific region. The overwhelming numbers of self sufficient, small-lot farmers and herdsmen are reducing while town populations are rapidly increasing in the historical pattern seen in Europe, North America and Australia. Increasing agricultural efficiency is allowing more land to be given over to efficiently providing wood for town use.

Professional foresters are increasingly making their presence felt in the twelve countries I have visited in the Asia-Pacific region. Notwithstanding that in most cases the authorities and population do not see forest conservation and wood production as a high priority compared to other pressing socio-economic problems, I believe that there is enough community goodwill to sustain a continuously increasing activity in wood conservation and production.

Let me use Western Australia [WA] as an example of the way things happen. Back in the nineteen twenties, when timber had been exported from WA for about 100 years, foresters and scientists recognised that as the favoured saw milling, but site separate, species *Eucalyptus diversicolor* [diversicolor] and *E. marginata* [marginata] were taken, the undesirable-favoured *E. calophylla* species, mingling on both sites, would interfere with regrowth and become more prolific. Could *calophylla* be used for a product where its disfiguring red gum veins and weakening water channels were not a disadvantage ? How about paper.

The Australian Government's scientific organisation looked at the possibility and concluded that acceptable kraft chemical pulp could be produced from *calophylla*. The scientists even made in Perth a small, fully featured, paper making machine to test the pulp in practice. But the short fibred pulp still required a certain wet strength to run on the machines of those days, a deficiency which was overcome by the addition of long fibre pulp. The final product was satisfactory.

The State Government then planted in the Blackwood River valley large areas of pines from which about 15% of the paper furnish would be made. As new technology has now eliminated the need for softwood pulp in hardwood paper, these pine plantations have been producing saw wood and, more recently, a few export chips.

The predominance of *calophylla*, foreseen in the nineteen twenties, was, by 1965, becoming a real hindrance to regrowth of the saw wood species. The timber industry was aware that the bulk shipping of softwood chips had commenced from the USA to Japan in 1962. It was also known that Japan had developed outstanding skills in the practice of hardwood papermaking for so-called cultural or graphic papers. In 1963 a WA timber company commenced negotiations, through its affiliated Japan office, for the export of *calophylla* chips.

In 1967 I approached Bunnings Limited, which wanted to put a proposal the State Government for a wood chip export industry, to engage the company which I represented, to act as their project managers. The negotiations for this job was my introduction to the industry and as the senior project officer, my introduction to forestry.

After two years negotiation with the Government for the resource I became the full time general manager of the new operating company, WA Chip and Pulp Co Pty Ltd [Wacap], with Bunnings and another major timber company as the share holders. Soon after all the significant timber companies took minor shares. This encouraged the cooperation of the domestic industry which was keen to dispose of the saw mill residue as wood chips.

The 1969 ? dollar shock and the 1973 first oil shock were complications in the arduous negotiations which resulted in a purchase contract from Japan just as it was sharply going into a recession which is quoted as being deeper than the present one.

During the four years of sales negotiations I visited all the locations which were identified as being leaders in technology pertinent to our situation. As is so often the case on the primary industries, I received a friendly welcome and explanations and inspection of their works.

We used the expertise in eucalyptus pulping of the Commonwealth Scientific and Industrial Research Organisation [CSIRO] a lot. CSIRO planned the sampling of the calophylla trees for the determination of its kraft pulp yield under a range of chip treatments. It was the most comprehensive sampling of growing wood, to that time, in Australia. Practical, full scale results corresponded with the test results, which is often not the case, and allowed us to take a very firm position when pricing our chips. As the analysis clearly showed a deterioration in yields as the rainfall reduced, we harvested wood from a wide range of localities in order to maintain a uniform quality. Unexpected changes in quality can cause unpredictable fluctuations in the complex chemical balance in the mill. Paper machine operators claimed that only three unplanned paper breaks were expected each year.

Dr. Huntly Higgins of CSIRO, Melbourne, was a very experienced wood scientist who had a facility of understanding the commercial importance of the various aspects of wood quality. He and I travelled the length and breadth of Japan explaining the properties of calophylla to potential customers a number of times.

I contracted CSIRO to conduct extensive tests on marginata, in conjunction with a scientist from a Japanese pulp mill, to determine the optimum pulping properties of that species. Saw mills were producing large quantities of marginata residues which in the main were being burnt. Despite the best effort marginata proved to be unattractive for pulping. The residues were only used for the expanding firewood market until a metallic silicon factory was established where marginata showed its value as a great oxygen screen.

By 1968 the state's foresters had gathered a lot of statistical information about the size of the calophylla boles in anticipation of chipping or pulping and this was recorded on the "new fangled" computers. The foresters had converted the data to sixteen foot length logs in anticipation that the wood would be feed to drum debarkers and the original field data was not available. As we were considering whole bole transport we employed a forester to remodel the data to full lengths over a period of six months. The reconstituted data helped with truck and tractor sizing. It also showed how much the trees size varied between rainfall bands. It would be necessary to obtain logs from a wide range of sites to obtain the advantages of a consistent mix of sizes to feed to the chip mill.

I had heard many horror stories of how pulp mills and chip mills had failed economically because the quantity and quality of the wood required for efficient operation had been misjudged. Our chip mill worked well on ten long shifts per week as expected, except in the following circumstance.

The log size data indicated that the sawing of logs to a diameter which would fit into the chipper, could be handled by the largest reliable equipment in one and a half shifts. We were therefore disconcerted to find that unrecorded large logs, covered in undergrowth, in areas which had already been logged for sawing up to ten years earlier, and which the foresters required us to recover, raised the chip mills sawing operation, and consequently the chipping operation, to over two shifts per day for three years.

The State granted Wacap a non-exclusive licence to harvest trees not suitable for saw mills in areas from which saw logs had been removed. Wacap engaged the saw millers to harvest and deliver these chip logs. The volume of logs obtained from harvested areas increased by up to 200%. It is estimated that the yield of saw logs from a given area increased by 15% because even small volumes of saw log in a tree could be economically identified and separated.

Over the years Wacap built a network of magnificent gravel roads which were used by log trucks almost exclusively. Other vehicles were required to use normal public roads.

This suited most public users as the public roads were more convenient in location and direction. The separation of public and tourist traffic from logging almost eliminated complaints regarding traffic conflict and enabled us to maintain the logging roads to standards which suited our usage. We accepted that the log trucks had to stop at each public road crossing.

The first loaded chip vessel departed from Bunbury port bound for Japan in May 1976, less than three years after the chip purchase contract was signed, on time and without any call on the completion guaranty finance, some achievement in that time of startlingly high inflation.

The construction was managed by Fluor Corporation, Development Finance Limited and Australian Industries Development Corporation advised on funds raising, and Malco Limited designed and erected the chip production and vessel loading plant and _____ designed and constructed the special railway chip wagons. The low-maintenance end result was a credit to everyone who participated.

The smoke from tee-pee waste wood burners became a thing of the past at diversicolor saw mills, reviving my memory of the same change around Burrard Inlet, British Columbia when chip exports started from there.

Negotiating

An agent was appointed to assist our selling efforts. Roger Gaine spent his childhood in Mongolia then, in between visits to England, worked in China and Japan and he was one of the first to foreigners to work after the war in Tokyo. Roger was the epitome of an English gentleman, complete with hat, cigars, a BBC voice and a disdain for the common. He sailed his own yacht, was president of the Animal Welfare Society in Japan and was a member of several well known clubs including

the very exclusive Tokyo Club. I had some very valuable lessons about the mores of conducting business in Japan and Taiwan from him.

For eighteen months I attended Japanese language lessons two nights per week. I learnt enough to be able to communicate with shop assistants and taxi drivers. I could read early Japanese primary school texts. This had an advantage when travelling by subway because all station names were written so that school children could read them. Interpreters were used at all negotiations, even when promotions and retirements meant that most of the younger buyers staff had at least some command of english. It had the advantage giving them two opportunities to ensure that they had understood correctly. Because english was so well known by executives it was freely used in general conversation and even my poor japanese degenerated for want of use.

All negotiations were conducted directly between the buying pulp and paper companies and my company. The buyers appointed one Japanese trading company to attend to import and commercial formalities and to ensure the business ran smoothly. These arrangements got us all through some very tough times.

It seems that three years is about the time it takes for the large companies to convert a concept to commitment. At the end of that time it moves very smoothly, probably because all those who may have even a little business interest in it has been consulted and kept informed, even the most junior officers. Business people are very patient, courteous and persistent when developing a project or handling any difficulty, always wanting to solve the problem rather than score points or debate. Frequent contact between officers of equal level in the participating organisations, like once per day for the leaders, is encouraged.

Exchange of information is the life blood of the corporate man. It is essential to have and to develop sources. This, of course, involves being a source. It is to be expected that interested strangers in an industry have an early understanding of a visitor's program.

Business "partnering" seems to be a natural way of conducting a business in Japan. Is this the source of Japan's success in consumer products industries? Does a partnering of the buyer/seller bring more rewards for longer? In my experience it does.

Payments for the chips were based on quality and quantity measurements made at the shipping port. On the few occasions when a penalty was applicable we paid without waiting for a claim.

Over the years I learnt a lot about Japan's ways from my business associates when travelling and during evening socialising. Appointing an officer, as close to the age and position of the visitor as possible, to attend to the visitor supports the "partnering" ambience.

Meetings were usually conducted in the well appointed, senior management's meeting rooms with our agent and his interpreter and me on one side of the table and twelve or more representatives of the various pulp mills and their trading company on

the other side. If, after the main offices closed for cleaning and security at about 7.00 pm, we all moved to a very low basement room, we knew that the day was going to be long.

Environment

The advent of the export of wood chips from Australia coincided with the arrival of the activist environmental movement ideas from the United States at the end of the nineteen sixties.

By 1973 the activism had extended to Western Australia. About 80% of the state's natural high forest was concentrated in forest reserves controlled by the state and known as State Forest. The rest was scattered on privately owned land. It was from within the reserve that Wacap would obtain most of its logs.

The State submitted the first forestry environmental review and management plan required under new Australian Government environmental laws. Acceptance of this plan by the Australian Government allowed Wacap to obtain an export licence.

Wacap had obtained, in 1969, the passing an act of parliament which regulated the provision of State services and resource for its project. Minor amendments of this act in 1973 attracted the first concerted opposition from the environmental movement seen in the state. The opposition to all activities in the native forest, which was concentrated on the wood chip industry, became well organised, very energetic, increased its protests, which still continue at a high level based on the same arguments.

The professional foresters who managed the State's forests were aggrieved and non-plussed at the abuse directed at their endeavours. Here they were, with a magnificent forest estate created by the government to prevent clearing for farms, despite strong opposition, which the foresters were conserving in the best traditions of a highly regarded profession.

The native trees had always been a very useful resource for the community. Marginata was readily available and was a first-class material for the making everything wood could be used for. The first non-indigenous settlers to arrive, in 1827, soon used the export of marginata, under the name of "Swan River Mahogany", to obtain much need cash.

There are expectations that legislation currently before the Australian Parliament will be accepted as a sensible balance between preservation and conservation of the nations forests, after a long example of the democratic process.

Management of the environmental matters was very important and occupied about 30% of my time as Wacap chief. Logging in the forest is planned, in broad terms, up to ten years ahead by the State foresters. These plans take into account the environmental protection measures which the foresters had agreed with all authorities with environmental responsibilities. Access road construction is required to comply

with appropriate environmental protection measures. The logging contractors comply with rules to eliminate significant environmental impact.

As the major user of logs from the WA forest, Wacap was the target of a continuous political campaign against logging, at a state level and at a nation level.

Wacap had the support of the State Governments of all persuasions and of the unions. A lot of my time was spent boosting the effectiveness of timber industry solidarity at the State level and encouraging the establishment of a national timber industry voice in the news media which developed into a National Association of Forest Industries. This Association was located in the national capital and had the support of nearly the whole of the 85% of the industry which used native logs as a raw material.

I also maintained close contact with those farming industry leaders who were active with the concept of sustainable development and promoted the use of trees for environmental management on farms. The farming industry has only started to change from its development objective of clearing most of the trees from farming land in the last generation and the idea of growing trees in large numbers is still considered queer by many. Politicians and State foresters have strongly supported plantations on farms because of their potential to slow down and, in some areas even reverse, the rising water table with a heavy load of accumulated salt.

Wacap's initial objective was to share the farming of a plantation with the farmer. The income tax laws made this a very complex arrangement which, understandably, farmers were wary of. Farmers preferred to receive an annual rent and most current land acquisitions for plantations are rented. I think it can be expected that when the plantations start producing some income, share farming will become more common. Many tree farmers have found it attractive to reduce the business risk [and probably helping to keep their bank happy] by pre-selling much of the wood at logging time market price, to Bunnings. There are about ten organisations competing for land and the finance to plant and grow the trees.

The hard work and risks required to make a living out of wool and beef with a falling price trend has recently caused more farmers to consider trees as another source of income.

The national parliament, over a period of approximately twenty years, conducted about fifteen investigations into the environmental effects of the use of native forests. A major report tabled in 1992 cost three million dollars. Without exception the environmental management of the nation's forests was found to be very satisfactory. Never-the-less parliamentary representatives continued to withdraw areas from industry use.

About 1984 public attitude research indicated to me that a major proportion of the public accepted that the forests could be used for wood supply provided that they were confident that the environment was being managed with care. There is no indication that this attitude has changed. It means that the managers of the multiple-use forest have a duty to continuously re-assure the public that the forest environment is being well managed.

In all states the management of conservation issues was difficult because the management was split between the Government managers of the forest environment and the industrial users of the wood, and between state and national governments. This compares with mining where, except for uranium, the owner of the mining lease has sole responsibility for complying with environmental requirements.

Plantations

Wacap's operations and finances had stabilised by 1979 and the State's forest data indicated a potential reduction in chip log availability for four years from 1990. Would fast growing eucalyptus species, which were receiving increasing mention in trade journals fill the gap? Contending species were listed, about six selected and the small trial plots which were planted on a farm owned by Wacap were severely damaged by "spring beetles". We therefore found that some species recovered quite well, among them being *E. globulus* [*globulus*].

We learnt that State foresters had planted trial plots of about ten eucalyptus species on about 25 widespread sites with varying qualities. I inspected about fifteen where natural tree growth indicated that the rainfall may possibly support the speedy growth of plantations. All plots indicated that the height, diameter and straightness of *globulus*, was the best or equal best.

Next the characteristics of species considered to have pulping potential were listed, the most important being :-

Growth rate	cinnamomi
Bark thickness	Site quality sensitivity
Basic Density	Form
Bush fire tolerance	Sawn and veneer wood potential
Summer drought tolerance	

Each characteristic was given a subjective weighting and a mark out of ten with one being the least favourable. Again *globulus* topped the list closely followed by *E. saligna*. Ability to vegetatively propagate was not included but the difficulty experienced with *globulus* was unlikely to have changed the selection. I decided to establish trials with broad scale plantings of *globulus* using the most easily obtainable provenance. To try to avoid putting "all the eggs in one basket", trial plot plantings of other species and provenances continued.

I decided that it was time to study the newly created pulping industry in Brazil based on hardwood plantations of Australian eucalyptus species. The close physical integration of a world scale pulp mill concept at Brazil's Aracruz project had received good trade publicity. This led to thoughts to Portugal's hardwood pulp industry based on *globulus* plantations which were subject to the same Mediterranean climate as south west Australia.

If *globulus* plantings continue for three or four more years at the current rate, sufficient plantation wood will be available to support a world scale kraft pulp mill.

Zero effluent technology would allow the mill to be constructed in the centre of the growing area where quality water is not voluminous.

Initial plantings were made on farm land carrying native forest which had degenerated because of saw log removal and or, damage by livestock. Soon after, plantings were made on poorer quality land in response to political pressure to use lower quality land. Before long planting on farm pasture land was demonstrated to be the most economically and environmentally attractive. The globulus made good use of the phosphate fertiliser bank in the soil.

Wacap obtained from the Australian Government a funds grant for the establishment of broad acre demonstration plots which were established in the areas where we wanted to attract farmer tree growers. I knew that farmers rarely believed the salesman but did believe their own eyes.

Over the years provenance selection has been optimised, seed orchards and mechanised seedling nurseries established, and the State foresters and many more private companies have entered the globulus plantation industry. A robust, alternative source of income has become available to farmers. Although the conservative margin in the State foresters' data meant that the potential short fall in 1990 never happened, this was far from the minds of the new and old industry members as they sought to expand the wood resource of the state.

Private farmland is sourced for radiata and globulus plantings. The location of commercially viable plantations depends on the farmers accepting rent prices or other interests the growers are offering. Very few farmers own the trees that are planted on their land.

The preferred planting area is surrounded by the 750 mm rainfall isohyet and the Southern and Indian Oceans. A port capable of handling vessels the same size as normal chip vessels is situated on both the west and south coasts of the area.

Planted areas on farms varies from about 20 ha. to over 1000 ha. but is very scattered. This is contrary to the most economical configuration of plantations compactly surrounding the processing plant. Western Australia's configuration has the benefit of reducing the chance of destruction of a significant area of plantation by wild fire, which often occurs in the summer in the area, . While insurance cover can be obtained for the value of the wood lost, the failure of processors to obtain sufficient raw materials to allow customer requirements to be met, can be disastrous for both.

The spread of plantations reduced objections to the monotonous appearance of compact plantations. Also community objections to plantations on the grounds that the local population would be significantly depleted if farmers did not have to stay on plantation covered farms, were also reduced.

The Team

Charles and Tom Bunning were the joint chairmen and major shareholders of Bunnings Limited who had the conviction to risk the company's future as the

The Team

Charles and Tom Bunning were the joint chairmen and major shareholders of Bunnings Limited who had the conviction to risk the company's future as the investment was large compared to the company's size. It was probably one of the most rewarding risks that they ever took, in a number of ways. Both were very active in the direction of Wacap, always ready with sound advice if asked. Tom had been a prisoner of war in Changi for three years. Frank Downing, a Wacap director and a leading lawyer, in fact a QC who advised his clients to avoid litigation, provided very good advice on important documents. Ron Ireland, was another helpful Wacap director, who still kept up his wartime connections with Borneo.

John Sanders who attended to the chip mill wood supply, John Bele who ran the port facility like clockwork, Len Cresey the chip mill manager, Ron Quaife who supervised the road maintenance crew, John Woodard the administration manager, the contractor's logging managers, the railway crews, John Willinge and Mike Zacnic, our shipping agents and all the vessel loading and tug crews, the harbour masters who could be relied upon to get the ship in or out if at all possible, all made a very important contribution to the company's business success.

Almost no time was lost through industrial action. I hoped this situation would have been contributed by my six monthly reports, on the business situation and plans, on site to all workers, the winter dinner for all staff and their wives when I always took the opportunity to remind the employees of their responsibility to their families to work safely, and my, and other managers, willingness to deal directly with any grievances. Christmas was the time for an after-work drink and snack for the more senior employees, local political figures, union representatives, contractors and towns people who provided services, a situation which the latter two were pleased about and at the same time were puzzled. Many employees made exceptional contributions to the company's performance.

The proportion of employees with university degrees was high by the usual forest products standards as I believed it paid. As most employees were country folk they knew what a good day's work was, the girls after graduating from high school soon taking senior secretary responsibilities.

Wacap's office in the state capital of Perth, 320 kilometres from the chip mill, was mainly a sales and planning office where I sat part time with a secretary. Wacap in later years had a public relations staff member and secretary, in Perth, educating the public about the benefits of the timber industry.